<u>IN THE DRAWINGS</u>

The attached sheet of drawings includes changes to Fig. 2, and replaces the original sheet. In particular, Fig. 2 has been labeled --Prior Art--.

Attachment: Replacement Sheet

REMARKS

Claims 1-7 are pending in this application. Claims 1, 2, 5, and 6 have been amended to define still more clearly what Applicant regards as his invention. Claims 1, 5, and 6 are independent.

Applicant has labeled Fig. 2 as --Prior Art--, and submitted herewith is a replacement sheet including that figure. Withdrawal of the objection to the drawings is respectfully requested.

Applicant is submitting herewith a copy of an executed declaration in accordance with page 2 of the Office Action.

Claims 1-7 were rejected under 35 U.S.C. § 103(a) as being obvious from the admitted prior art.

The present invention is directed to techniques for decoding variable-length code words for still or moving images. Such images are often compression encoded by using an entropy encoding technique by run length/category encoding and variable-length encoding. This technique is employed in JPEG (Joint Photographic Experts Group) encoding and MPEG -1/-2 (Moving Pictures Experts Group) encoding. In these encoding methods, an event for executing variable-length encoding is caused by implementing entropy encoding by assigning a Huffman code to a two-dimensional event called a run length and level. The two dimensional event of run length and level is referred to as a symbol. Since enormous comparison calculation is typically necessary for decoding images which have been encoded using these techniques, it can be difficult to implement real-time decoding. The present invention aims to increase the speed of decoding processing such that real-time decoding processing can occur.

Claim 1 is directed to a variable-length code decoding apparatus which receives a bitstream of variable-length-encoded image data and outputs symbol data. The apparatus includes queuing means, discrimination means, extraction means, a Huffman table, computing means, decoding means, and selection means. The queuing means queues a variable-length code word from the received bitstream. The discrimination means discriminates a type of a code word in accordance with a pattern of a predetermined number of bits at a start of the variable-length code word queued by the queuing means. The extraction means extracts data having a sufficient code word length from a predetermined bit position on the basis of the discrimination result. A Huffman table compares the extracted data with a variable-length code word stored in advance, and when the data and the variable-length code word coincide, outputs first symbol data. The computing means modifies, for the first symbol data output from the Huffman table, the first symbol data and generates a plurality of types of second symbol data in accordance with the modified first symbol. The decoding selects a predetermined bit lane from the variable-length code word queued by the queuing means and outputs the bit lane as third symbol data. The selection means selects and outputs one of the first symbol data output from the Huffman table, the second symbol data generated by the computing means, and the third symbol data generated by the decoding means, in accordance with a value of the variable-length code word queued by the queuing means.

One notable feature of Claim 1 is modifying first symbol data outputted from the Huffman table and generating a plurality of types of second symbol data in accordance with the modified first symbol. There is nothing in the admitted prior art that

would teach or suggest this feature. That is, nothing in the admitted prior art would teach or suggest the computing means recited in Claim 1.

Accordingly, Applicant submits that Claim 1 is clearly allowable over the admitted prior art.

Independent Claims 5 and 6 correspond to Claim 1, and are believed to be patentable for at least the same reasons as discussed above in connection with Claim 1.
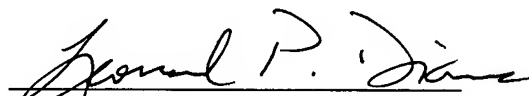
A review of the other art of record has failed to reveal anything which, in Applicant's opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from Claim 1 or Claim 6 discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicant respectfully requests favorable reconsideration and early passage to issue of the present application.

Applicant's undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

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